Claims

1. Sputter ion source, consisting essentially of the components of ionizer (2), cathode (3), sputter insert (4), forming electrode (5), shielding cap (6) and cathode insulator (7) in a vacuum-tight housing, characterized in that a shielding cathode (1) is disposed hollow cylindrically about the sputter cathode, consisting of the components of cathode (3), sputter insert (4) and shielding cap (6), the shielding electrode (1) tapering rotationally symmetrically in the region of the sputter insert (4).

2. The sputter ion source of claim 1, characterized in that the shielding electrode (1) is at or approximately at the potential of the ionizer (2) and located on the housing.

3. The sputter ion source of claim 1, characterized in that the side of the forming electrode (5), facing the cathode (3), is connected with the shielding electrode (1) and the connection between the front side of the forming electrode (5) and the ionizer (2) is omitted.

4. The sputter ion source of claim 1, characterized in that the shielding electrode (1) is connected with the coldest part of the housing.